VISIT…

LANZAROTE Caliente.COM

Advanced Alien Life? SETI Retargets “Pale Red Dots Billions of Years Older that Our Sun”

May 19, 2016

The SETI Institute believes that planetary systems orbiting red dwarfs — dim, long-lived stars that are on average billions of years older than our sun — are worth investigating for signs of advanced extraterrestrial life. The star that’s closest to our sun, Proxima Centauri, is a red dwarf. A variety of observing efforts, including the University of London's Pale Red Dot Initiative, are looking for earthlike habitable planets around Proxima Centauri (shown below).

“Red dwarfs – the dim bulbs of the cosmos – have received scant attention by SETI scientists in the past,” SETI Institute engineer Jon Richard said last March announcing a new initiative. “That’s because researchers made the seemingly

reasonable assumption that other intelligent species would be on planets orbiting stars similar to the sun."

Alpha Centauri A and B are the bright stars; Proxima Centauri, a red dwarf star, is the small, faint one circled in red. (NASA, Julia Figliotti)

"This may be one instance in which older is better," said astronomer Seth Shostak of California-based SETI, a private, non-profit organization which stands for Search for Extraterrestrial Intelligence. "Older solar systems have had more time to produce intelligent species." A super-Earth known as Kapteyn b that orbits an 11.5 billion-year-old red dwarf, for example, makes the star and the planet 2.5 times older than Earth.

The two-year project involves picking from a list of about 70,000 red dwarfs and scanning 20,000 of the nearest ones, along with the cosmic bodies that circle them using the SETI Institute's Allen Telescope Array in the High Sierras of northern California, a group of 42 antennas that can observe three stars simultaneously.

"We'll scrutinize targeted systems over several frequency bands between 1 and 10 GHz," said SETI scientist Gerry Harp. "Roughly half of those bands will be at so-called 'magic frequencies' — places on the radio dial that are directly related to

basic mathematical constants. It's reasonable to speculate that extraterrestrials trying to attract attention might generate signals at such special frequencies."

For a long time, scientists ruled out searching around red dwarfs because habitable zones around the stars are small, and planets orbiting them would be so close that one side would be constantly facing the star, making one side of the planet very hot and the other quite cold and dark.

But more recently, scientists have learned that heat could be transported from the light side of the planet to the darker side, and that much of the surface could be amenable to life.

"In addition, exoplanet data have suggested that somewhere between one sixth and one half of red dwarf stars have planets in their habitable zones, a percentage comparable to, and possibly greater than, for Sun-like stars," said the statement.

The brightest of Red Dwarfs are a tenth as luminous as the sun, and some are just 0.01 percent as bright, but account for three-quarters of all stars, with 6 percent or more of all red dwarfs having potentially habitable, Earth-sized planets.

The image at the top of the page is a rendering of a cold desert on a planet orbiting Proxima Centauri. Our thanks to by Vladimir Romanyuk of Space Engine, a free space simulation program that lets you explore the universe in three dimensions, from planet Earth to the most distant galaxies. Millions of galaxies, trillions of stars, countless planets - all available for exploration. You can land any planet, moon or asteroid and watch alien landscapes and celestial phenomena. You can even pilot starships and atmospheric shuttles.

Proxima and the other Alpha Centauri stars have loomed large in science fiction: from Robert Heinlein's "Orphans of the Sky" stories of crews traveling to Proxima to Isaac Asimov's "Foundation and Earth" set around Alpha Centauri and more recently to the James Cameron's movie "Avatar," also set on the fictional Alpha Centauri planet, Pandora.

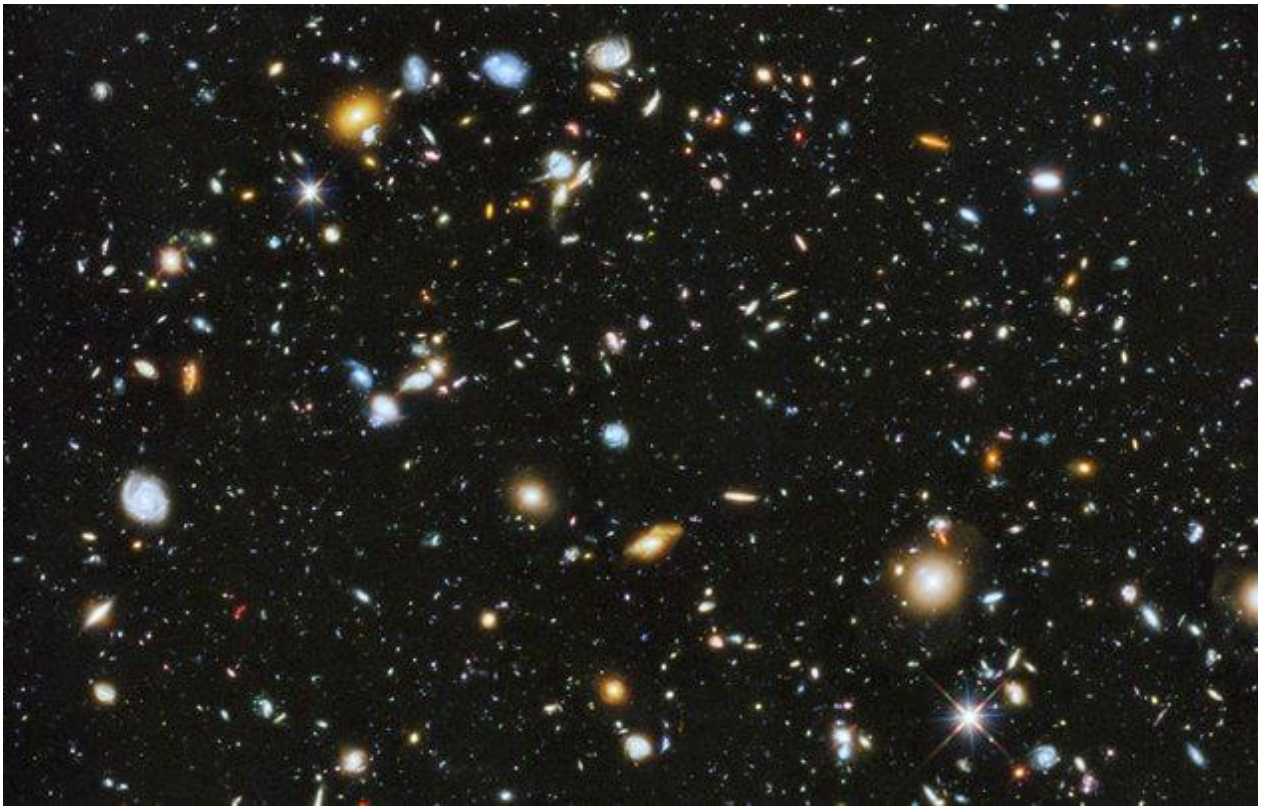
The Daily Galaxy via SETI Institute, and AFP

Image credits: NASA/Chandra X-Ray Space Observatory

Alien Civilizations May Number In The Trillions, New Study Says

“We really do know that pretty much every star in the sky hosts at least one planet,” says astronomer Adam Frank.

05/19/2016 11:04 am ET | Lee Speigel - Writer, Editor, The Huffington Post



NASA/REUTERS

This colorful deep space image captured by the Hubble Space Telescope was released by NASA in 2014. What’s astonishing about the image is that it depicts a very small portion of the sky but shows approximately 10,000 galaxies, each made up of billions of stars.

The possibility that we earthlings are not truly alone in the universe has gained some added credibility, thanks to a new study that coincides with NASA’s recent planetary discoveries. The research, published in the journal Astrobiology last

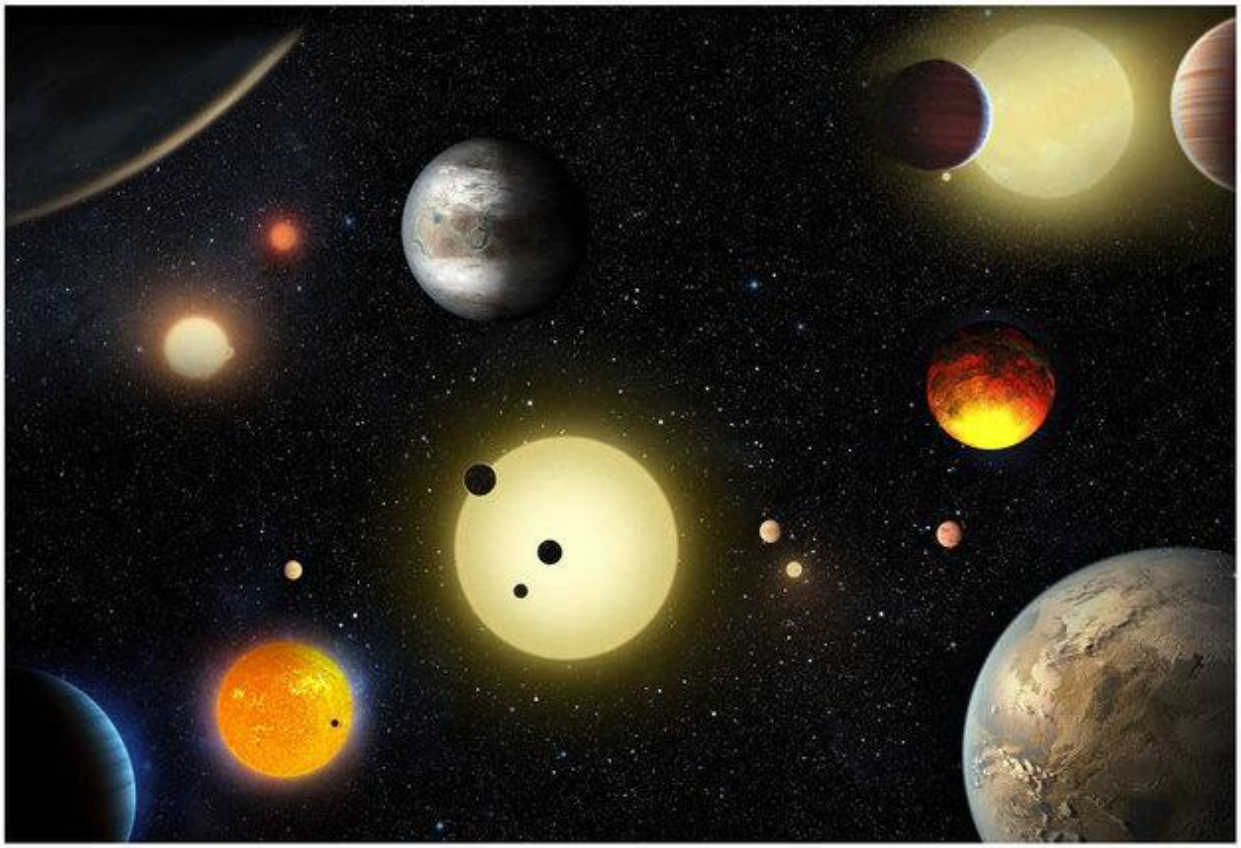
week, suggests that more planets in the Milky Way galaxy may harbor advanced civilizations than we previously imagined.

Study co-authors Adam Frank and Woodruff Sullivan looked at recent discoveries of potentially habitable exoplanets and considered the odds of whether sophisticated civilizations existed on them in the past or present.

“What we showed was the ‘floor’ on the probability for a civilization to form on any randomly chosen planet,” Frank, a University of Rochester physics and astronomy professor, told The Huffington Post in an email. “If we are the only civilization in cosmic history, then that what we calculated is the actual probability nature has set. But if the actual probability is higher than that floor, then civilizations have happened before.”

Frank says the potential number of planets orbiting their parent stars within a habitable distance is staggering.

“Even if you are pretty pessimistic and think that you’d have to search through 100 billion (habitable zone) planets before you found one where a civilization developed, then there have still been a trillion civilizations over cosmic history!” Frank wrote. “When I think about that, my mind reels — even if there is just a one in a 100 billion chance of evolution creating exo-civilizations, the universe still has made so many of them that we are swamped by histories other than our own.”

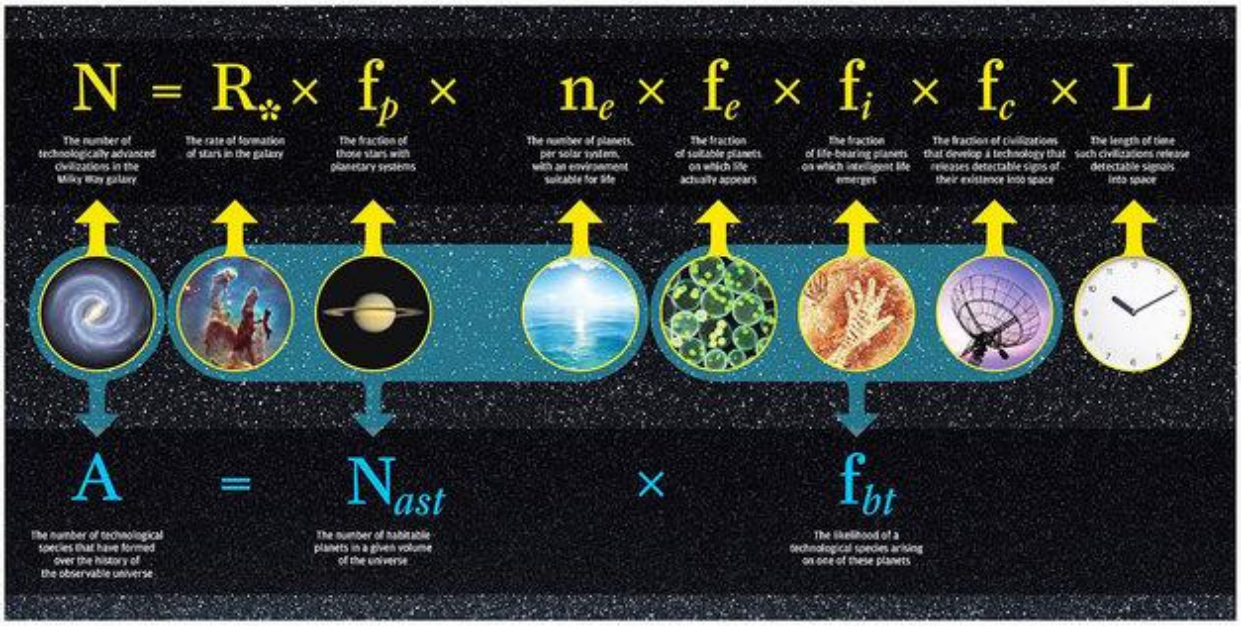


NASA/W. Stenzel

An artist's depiction of planetary discoveries by NASA's Kepler spacecraft, which searches for Earth-like planets. The Kepler telescope has discovered thousands of verified planets since it launched in 2009.

In 1961, astronomer Frank Drake — founder of the SETI Institute (SETI stands for "Search for Extraterrestrial Intelligence") — devised what is now known as the "Drake equation" to estimate the number of planets that may be home to civilizations with the ability to communicate beyond their world.

Frank and Sullivan created a new equation, which appears at the bottom of the illustration below. While the Drake equation calculates the number of advanced alien civilizations that could exist in the Milky Way galaxy, Frank and Sullivan's equation expands the question to calculate the number of advanced civilizations that have existed in our galaxy throughout the whole history of the universe.



University of Rochester

Two equations consider the possibilities of technological alien civilizations in the Milky Way galaxy: At top, the 1961 Drake equation and, at bottom, a more recent equation by Adam Frank and Woodruff Sullivan.

The variable factors that Drake and others consider when attempting to come up with figures about ET-inhabited worlds include:

The rate of formation of stars with planets suitable for intelligent life.

The number of those stars that have planetary systems.

The number of those planets which may have life-sustaining environments.

The number of those planets where life develops.

How many of those planets produce intelligent life.

How many of those intelligent life forms could produce technology, such as radio signals.

In their Astrobiology paper, Frank and Sullivan write:

> *"Recent advances in exoplanet studies provide strong constraints on all astrophysical terms in the Drake equation. We set a firm lower bound on the probability that one or more technological species have evolved anywhere and at any time in the history of the observable universe."*

The two scientists address what they refer to as “the cosmic frequency of technological species.”

“The universe is more than 13 billion years old,” Sullivan, of the astronomy department and astrobiology program at the University of Washington, said in a statement. “That means that even if there have been 1,000 civilizations in our own galaxy, if they live only as long as we have been around — roughly 10,000 years — then all of them are likely already extinct. And others won’t evolve until we are long gone.

“For us to have much chance in finding another ‘contemporary’ active technological civilization, on average they must last much longer than our present lifetime,” Sullivan said.

The search for extraterrestrial signals has been ongoing for decades.

“With so many stars and planets filling the cosmos, it boggles the mind to think that we’re the only clever life to have made an appearance,” SETI Institute senior astronomer Seth Shostak told HuffPost in an email. “Frank and Sullivan use new research indicating that roughly one in five stars is orbited by a planet that could nurture biology. After that, it’s just a matter of counting up the tally of stars in the visible universe, and saying that — with all the suitable real estate that’s out there, if we’re the only place with intelligent life, then we’ve really won the mother of all lotteries.”

Shostak cautions against being overly optimistic or pessimistic about the SETI Institute’s searches for intelligent signals from possible outer space neighbors.

“The odds that no one is out there are very, very small. It’s a bit like an ant coming out of its hive, seeing the enormous amount of real estate stretching in all directions and deciding that, if its home is the only ant hill, then its existence is a near-miracle. Or, put another way, the calculation by Frank and Sullivan quantifies Jodie Foster’s statement in [the movie] ‘Contact’ that, if there’s nobody out there, it would be a ‘waste of space,’” said Shostak.

With all the suitable real estate that’s out there, if we’re the only place with intelligent life, then we’ve really won the mother of all lotteries.” Seth Shostak, SETI Institute senior astronomer

Scientists searching for extraterrestrial beings — and, yes, to those beings, we would be aliens — are like archaeologists combing a vast space for treasures and information to learn more about the history of our species.

“I love the notion of a cosmic archaeological question. I think this puts an important new spin on the question about the rise of technological communicating intelligence,” Penelope J. Boston, incoming director of NASA’s Astrobiology Institute at Ames Research Center, told HuffPost.

“We have only been looking for other intelligences for a few decades in a galaxy of unfathomable proportions,” Boston said. “Of course we haven’t found anybody yet. I think it is childish to imagine that we should somehow have started looking, and bingo, there they are! I have trouble finding my dropped contact lens in the grass. Should I then disbelieve in the reality of my contact lens?”

While scientists had long wondered if there were other planets orbiting stars in the Milky Way galaxy and elsewhere, it wasn’t until the early 1990s that the first extrasolar world was confirmed.

“The existence of planets orbiting stars other than the sun is a 2,500-year-old question that has been entirely answered over the last 20 years,” said Frank. “We now know that every star in the night sky has at least one planet orbiting it, and many of those are in the right place for life to form.

“Ten thousand years from now, no one will remember anything about our era except it was when we discovered this single profound fact: We live in a cosmos of planets.”

Alien Intelligence Workshop Seeks To Shed Light On

Evolution And Behavior Of Extraterrestrial Life

Scientists from various fields held an intelligence workshop on Wednesday in order to examine the most effective ways to communicate with extraterrestrial civilizations.

By Tyler MacDonald – Headlines and Global News| May 18, 2016 07:00 PM EDT

Scientists from various fields held an intelligence workshop on Wednesday in order to examine the most effective ways to communicate with extraterrestrial civilizations. (Photo: Getty Images)

Scientists gathered in Puerto Rico Wednesday to discuss the potential forms of alien intelligence during a daylong workshop called "The Intelligence of SETI: Cognition and Communication in Extraterrestrial Intelligence." During the course of the workshop, various astronomers, biologists and researchers from numerous fields brainstormed the most effective ways to create messages that can be understood by alien civilizations.

"Philosophical questions aside, from a pragmatic perspective, if we are to send a message, we must design it in a way that it can be understood and used by the broadest range of forms that intelligent life could take," said Dominic Sivitilli and David Gire, biologists from the University of Washington. "We can make substantial progress toward this goal by understanding the diversity of forms that intelligent life has taken on this planet."

Understanding this intelligence means gaining a better understanding of various characteristics of potential alien life, including what they might look like, how they might have evolved and their methods of behavior and communication.

For example, Anna Dornhaus, a biologist from the University of Arizona, believes that it is possible that sexual selection, which pushes the evolution of traits linked to attracting potential mates, has played a larger role than standard natural selection in the development of human intelligence. If this is true, our level of cognition might be rare.

"If this is true, then we should expect cognitive ability - i.e., learning, memory, abstraction and many other elements of intelligence - to be commonplace in the galaxy as they are among organisms on Earth," she said. "But 'exaggerated' intelligence, as in humans, may be a rare accident of chance, as rare as a peacock's tail."

The alien intelligence workshop is a part of the National Space Society's International Space Development Conference (ISDC), which takes place from May 18 to May 22 in San Juan, Puerto Rico.

"By launching ISDC 2016 with a daylong meeting on the nature of intelligence in the universe, we set the stage for an engaging conference that includes sessions on the habitability of other worlds, the latest research from Arecibo Observatory and updates on cutting-edge space missions like Breakthrough Starshot to Alpha Centauri (Pete Worden) and New Horizons to Pluto (Alan Stern)," said Dave Dressler, the ISDC's 2016 program chairman.

Antikythera Mechanism: Ancient Celestial Calculator

By Alina Bradford, Live Science Contributor | May 18, 2016 02:02am ET

This is the largest piece of the Antikythera Mechanism, which is on display at the National Archaeological Museum in Athens, Greece.

Credit: National Archaeological Museum, Athens, Greece

The Antikythera Mechanism has been called an “ancient calculator,” but there is so much more to it than meets the eye. The shoebox-size device has a complex gearwheel system of 30 intricate bronze gear wheels used to run a system that displayed the date, positions of the sun and moon, lunar phases, a 19-year

calendar and a 223-month eclipse prediction dial. This makes it an analog computer of great complexity. No other machine of known existence shows a similarity in advanced engineering for at least another 1,000 years.

The discovery

In 1900, a boatload of sponge divers in the Mediterranean were forced off course by a storm and took shelter nearby the island of Antikythera. The next day, they went diving near the island and discovered a 2,000-year-old Greek shipwreck, according to NOVA.

The ship likely sank between 70 B.C. and 60 B.C. on a voyage from Asia Minor to Rome. The sponge divers salvaged from the ship three flat pieces of corroded bronze that later became known to be the Antikythera Mechanism.

The device has been dated as coming from the second or early first century B.C., according to research published in the science journal Nature. Research, published in the journal Archive for History of Exact Science in 2014, found that the mechanism was timed to begin in 205 B.C.

What it does

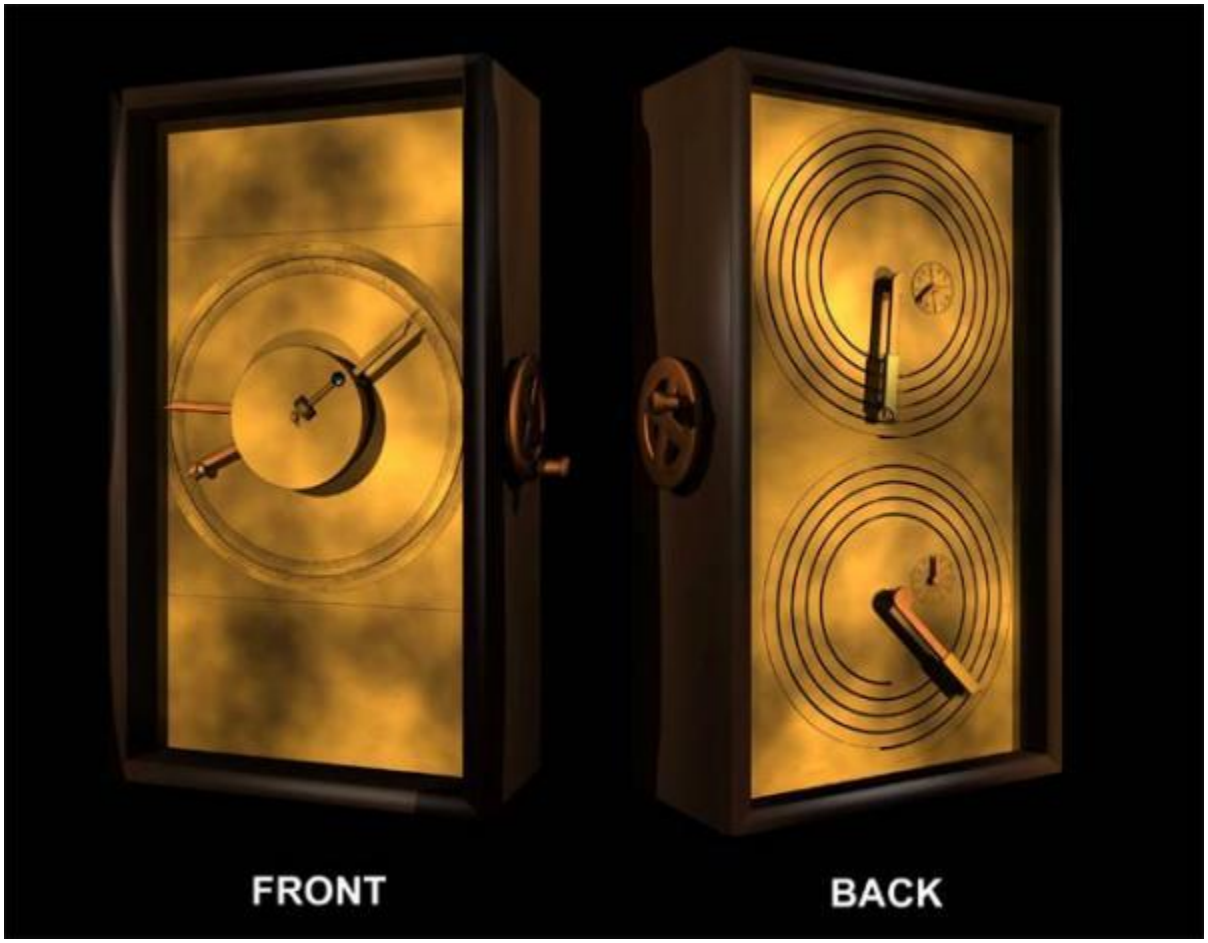
For decades, scientists could only guess about the use of the mechanism because it is too fragile to examine by hand. Advancements in imaging, such as 3-D X-ray scanners, has allowed scientists to see the many working parts of the machine and inscriptions that offer directions on how to use the device.

It was believed that it is an ancient astronomy calculator that shows the four-year cycle of the early Greek competitions that inspired today's Olympic Games. Inscriptions on the device list names linked to the Olympiad cycle of games.

"The first clues that suggested a link with the ancient cycle of Greek games came when the word 'NEMEA' was read near a small subsidiary dial on the mechanism," said Tony Freeth, a scientist with Images First Ltd. in the United Kingdom and coauthor on the Nature study. [Ancient Olympic Calculator Discovered]

The Nemean Games was one of the crown games in the Olympiad cycle. Other names were also found, which included 'ISTHMIA" for the games at Corinth, 'PYTHIA' for the games at Delphi, and the word 'OLYMPIA' for the Olympic Games.

Additional research and reconstruction of a working model of the device in 2006 found that it may not be Greek as formerly believed, according to Nature. It may actually be Babylonian, making the device centuries older than previously thought, which means that the Babylonians may have played a large role in shaping Greek advancements in astronomy, though this has been highly debated.



A computer-generated reconstruction of the front and back of the Antikythera Mechanism.

Credit: Antikythera Mechanism Research Project

Physical description

The Antikythera Mechanism is not all in one piece. There are 82 catalogued fragments of the Antikythera Mechanism and they are kept at the National Archaeological Museum in Athens, Greece, according to the Antikythera Mechanism Research Project. Many of the pieces have been named and functions have been attributed them.

The calendar scale represents a 360-day year and is divided into 12 months of 30 days each plus a five-day extra period, which corresponds to the Greek-Egyptian calendar.

The planetary dials list the five planets that were known at the time: Mercury, Venus, Mars, Jupiter and Saturn. It is thought that these dials may have shown planetary cycles.

The zodiac scale is a 360-degree dial divided into the 12 signs of the zodiac, which are split into a "fast" zone and a "slow" zone. These speed zones are believed to represent the varying apparent speed of the sun.

These dials had seven pointers, total, though they are lost or destroyed. The sun pointer shows the date on the calendar scale and the sun’s position in the sky on the zodiac scale. It makes a complete turn for each year. The moon pointer shows the moon’s position in the sky on the zodiac scale.

Below the moon pointer is a revolving black-and-white ball that represents the moon’s phases. This seems to have modeled the moon's elliptical orbit around Earth rather than a circular orbit. This is at odds with Greek philosophers' belief that all heavenly orbits were perfect circles.

There was also a handle, which researchers think was used to move the pointers back and forth.

Rumors of a hoax

There are many conspiracy theories online that claim that the Antikythera Mechanism is a hoax simply because some believe that ancient people couldn’t possibly build a device so complex. The Antikythera Mechanism Research Project stated that an examination at the National Archaeological Museum in Athens has found that the device is not a hoax.

Argentina: A UFO Sighting in Desvío Arijón, Santa Fe

Wednesday, May 18, 2016 by Andrea Pérez Simondini

Source: Planeta UFO and CEFORA

It is interesting to see people make themselves available to research, entrusting their account to our team to bring it to the readers' attention, seeking perhaps the possibility of other witnesses to the case, and if not, information on other cases having the same characteristics.

Fact Sheet:

Location: Desvío Arijón - between Sauce Viejo and Coronda, Province of Santa Fe (Argentina)

Date: Friday, February 19, 2016

Witness: Luciano Castro

So it was that we received a message from Leandro Castro on Facebook, detailing the sighting of an object that he was also able to photograph.

Text of the message:

"Hi Andrea! Good evening. I'm Leandro Castro, I'm from the locality of Desvío Arijón, a little town between Sauce Viejo and Coronda in the Province of Santa Fe. I live by the Coronda River, and I took the photo on Friday, February 19 after one of the heavy storms we had that month. In the photo you can see something flying over the river...it was spectacular, on account of its lights and how close it was! Regrettably, we took some photos with our cellphones and they cannot be seen clearly, but I was able to pull out a little digital camera and take two shots. Having not used the camera for a while, its battery was running low and it turned off...it almost seemed deliberate, ha, ha...well, Andrea, I hope you can use this photo. I have been following your page for a long time, and someday I'll visit your museum. Best regards!"

After thanking him for his message, he replied:

"You're welcome, Andrea! Thank you for replying. I've always been drawn to these things. I like reading about UFOs and suchlike. The photo shows a disk with three pairs of lights and some smaller ones among the larger lights. You can't make out the disk...but the lights define the shape!"

Is This a UFO Flying above the Trees in Lancashire?

Published: 6:21 PM 5/15/2016

Proof that aliens exist?

By DAVID BARNETT

It was taken by Zed Khan, a committed UFO watcher who says he had been meditating through the nights for nine months in the hope of making contact with aliens.

The 47-year-old of Catforth, near Preston, says his efforts paid off when he spotted a shape in the sky at 6am one Saturday morning last month while he was sitting in his garden.

He took a photograph of the mysterious silhouette, which looks just like the murderous beasts from the series of movies starring Sigourney Weaver.

The 'Xenomorphs' in the films impregnate human bodies so their young can explosively burst out from their hosts - as happened in the memorable scene with John Hurt in the first movie in 1979.

Like the image on Mr. Khan's pictures, the movie aliens have extended heads, skeletal bodies, elongated limbs and a reptilian tail.

But he prefers to think that the extraterrestrial he is convinced he saw is more benign than the rampaging Xenomorphs.

He told the Lancashire Evening Post: "I think it might be part organic and part machine, although some people have said it looks like the alien from the films.

Mr. Khan spotted the shape in the sky at 6am one Saturday morning last month.

"I wouldn't say that, as it's very negative and I'd like to be positive about what it is."

Mr. Khan said he has seen UFOs before - fiery-orange triangular shaped spacecraft - but this is the first time he has managed to catch anything on camera.

He said: "I've been meditating through the night for about nine months now to try and communicate with extraterrestrials and out of the corner of my eye I saw something appear.

"It was only for a few seconds but luckily I had my phone ready and managed to get a shot of it before it disappeared a few seconds later.

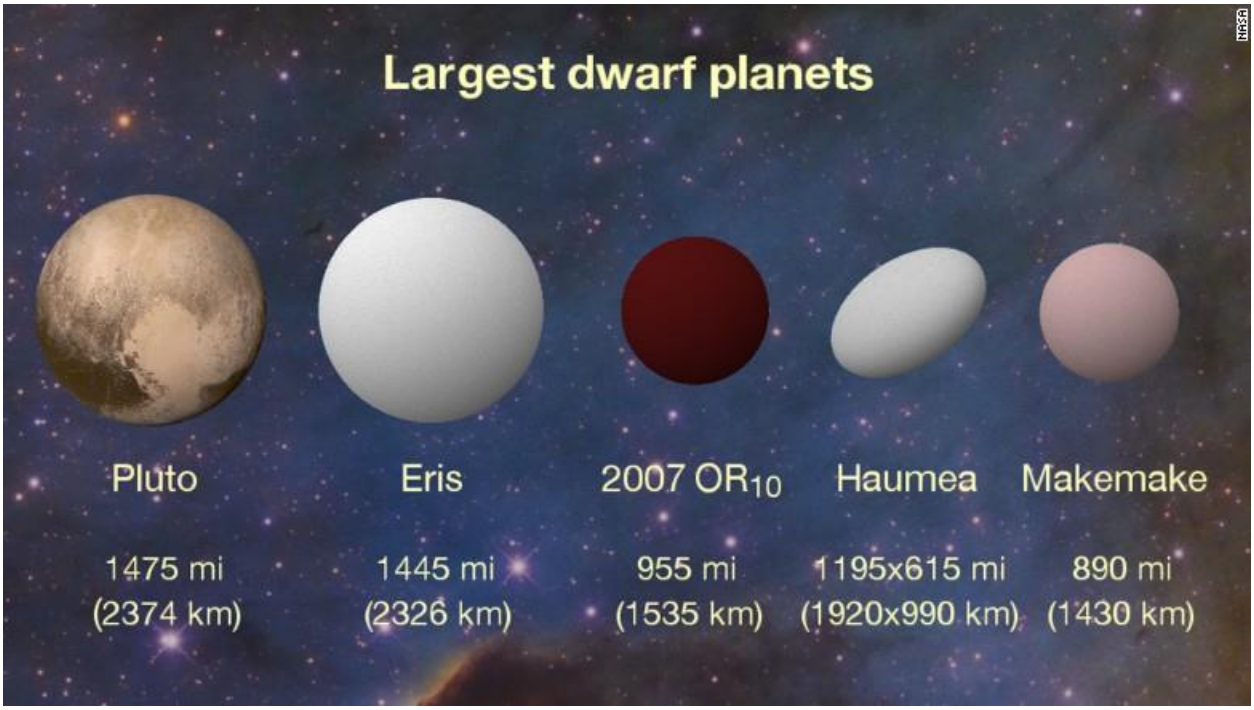
"It was weird because normally you expect them to be a disc shape but this appears to have had four legs."

He believes that meditation is the best way to make contact with aliens, and added: "It really is all about enlightenment. The meditation allows us to communicate with them.

"I don't think anyone who isn't open-minded will understand. Lots of people are sceptics."

Meet the largest unnamed world in our solar system

By Jareen Imam, CNN - Updated 5:26 PM ET, Thu May 12, 2016



Scientists believe there may be thousands of worlds like 2007 OR10 in our solar system.

(CNN)A majority of dwarf planets lie tucked away in the depths of our solar system.

A handful have been identified in the last decade thanks to new technology, but many remain a mystery, undiscovered by astronomers.

However, scientists believe they have stumbled upon the largest unnamed world in our solar system after analyzing data from two space observatories, according to a new report by NASA.

The world, 2007 OR10, is much larger than astronomers previously thought, making it the third largest dwarf planet on a list of half a dozen worlds. Scientists believe there may be thousands of worlds like this in our solar system.

Many dwarf planets are hard to detect because they look like tiny points of light. It is hard to tell if that light is coming from a small world or a large world. That was one of the challenges of finding 2007 OR10. Although its elliptical orbit brings it as

close to our sun as Neptune, the eighth planet in our solar system, 2007 OR10 is twice as far away as Pluto.

Using Kepler, NASA's planet-hunting space telescope, and archival data from European Space Agency's Herschel Space Observatory mission, astronomers were able to revise the size of 2007 OR10.

The world has a diameter of 955 miles, making it about one-third Pluto's size, according to findings published in the Astronomical Journal in April.

"Our revised larger size for 2007 OR10 makes it increasingly likely the planet is covered in volatile ices of methane, carbon monoxide and nitrogen, which would be easily lost to space by a smaller object," said András Pál at Konkoly Observatory in Budapest, Hungary, who led the research. "It's thrilling to tease out details like this about a distant, new world -- especially since it has such an exceptionally dark and reddish surface for its size."

One observation scientists have made is that 2007 OR10 is a very dark world, which could give us clues about the early history of our solar system

"We think this object is left over from when our sun and solar system first formed," NASA scientist Geert Barentsen said. "It's almost as old as the sun itself."

The reason 2007 OR10 is so dark is because it's likely frozen material that reflects very little sunlight. Scientists are interested in studying the world in order to learn more about how Earth formed.

"It may be one of the darkest dwarf planets in our solar system," Barentsen said.

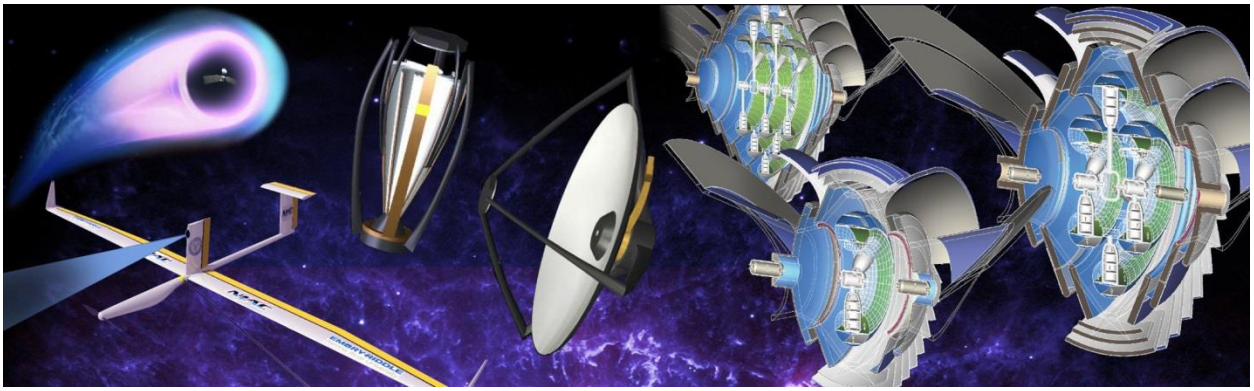
It's up to the team of astronomers who discovered 2007 OR10 to give the world a name. Usually dwarf planets are named after a certain characteristic, but astronomers didn't know enough about 2007 OR10 to officially name it until now, according to Meg Schwamb, who was one of the astronomers to identify the world in 2007 during a survey.

With the exception of Ceres, which is the largest object in the asteroid belt that lies between Mars and Jupiter, almost all other minor planets are floating beyond Neptune.

The chances of us reaching 2007 OR10 in our lifetime are slim, especially because it has taken scientists about a decade to reach Pluto. But we can still learn a lot about this world with our current satellite technology, Barentsen said.

NASA Funds Interstellar Flight System, 7 Other Wild Space Tech Ideas

By Mike Wall, Space.com Senior Writer | May 16, 2016 04:45pm ET



Eight studies have received funding under Phase 2 of the NASA innovative Advanced Concepts program, including a proposal to blast tiny spacecraft to other star systems using powerful lasers.

Credit: NASA

NASA has funded eight advanced-technology concepts that agency officials believe could help transform space science and exploration.

The high-risk, high-reward ideas — which received grants under Phase 2 of the NASA Innovative Advanced Concepts (NIAC) program — include a possible way to

induce a hibernation-like state in Mars-bound astronauts and a proposal to blast tiny spacecraft between the stars using powerful lasers.

"The NIAC program is one of the ways NASA engages the U.S. scientific and engineering communities, including agency civil servants, by challenging them to come up with some of the most visionary aerospace concepts," Steve Jurczyk, associate administrator of NASA's Space Technology Mission Directorate in Washington, D.C, said in a statement Friday (May 13). "This year's Phase 2 fellows have clearly met this challenge." [Gallery: Visions of Interstellar Starship Travel]

Phase 2 NIAC awardees receive up to $500,000 for two years of work. The goal is to further develop ideas that have already been fleshed out with the aid of a $100,000 Phase 1 NIAC grant, which supports initial analysis studies.

Here are the 2016 NIAC Phase 2 concepts, along with the principal investigators for each:

Advancing Torpor-Inducing Transfer Habitats for Human Stasis to Mars; John Bradford, Space Works, Inc. in Atlanta. Bradford and his team are working on a way to put astronauts in a sort of hibernation, by lowering their core temperatures significantly. This strategy could make the long trip to Mars cheaper, safer and less taxing physically and psychologically for crewmembers, the scientists say.

Directed Energy Interstellar Study; Philip Lubin, University of California, Santa Barbara. This project's investigators aim to develop an interstellar spaceflight system that would accelerate sail-equipped probes to incredible speeds using powerful laser blasts. This basic idea is at the heart of the $100 million Breakthrough Starshot project, which Stephen Hawking and other scientists announced last month.

Magnetoshell Aerocapture for Manned Missions and Planetary Deep Space Orbiters; David Kirtley, MSNW, LLC in Redmond, Washington. In this concept, a spacecraft would slow down upon approach to a planet by generating its own magnetic field. This field would trap ions, which would then be dragged through the planet's atmosphere, decelerating the probe. Magnetoshell aerocapture could conceivably allow missions to dispense with thermal-protection gear, thereby saving lots of money, its developers said.

Cryogenic Selective Surfaces; Robert Youngquist, Kennedy Space Center in Florida. Youngquist and his team have developed a highly reflective coating called

"Solar White" that, the scientists said, could enable long-term cryogenic fuel storage, superconductor operation in deep space and other advances.

Experimental Demonstration and System Analysis for Plasmonic Force Propulsion; Joshua Rovey, University of Missouri in Rolla. The researchers involved in this proposal aim to demonstrate the feasibility and benefits of plasmonic force propulsion, which would take advantage of the interaction between sunlight and "asymmetric nanostructures" on a tiny spacecraft to move that spacecraft around cheaply, efficiently and precisely. This novel type of propulsion could open up new space-exploration possibilities for small spacecraft, Rovey and his colleagues said.

Flight Demonstration of Novel Atmospheric Satellite Concept; William Engblom, Embry-Riddle Aeronautical University in Daytona Beach, Florida. The idea here is to connect two uncrewed, glider-like aircraft using a long, strong cable. This system could stay aloft high in Earth's atmosphere pretty much indefinitely, using only wind and solar energy, Engblom and his colleagues said.

Further Development of APERTURE: A Precise Extremely Large Reflective Telescope Using Re-configurable Elements; Melville Ulmer, Northwestern University in Evanston, Illinois. APERTURE is a space-telescope concept that would boast an extremely large, membrane-like primary mirror, whose shape would be corrected after deployment in space.

Tensegrity Approaches to In-Space Construction of a 1g Growable Habitat; Robert Skelton, Texas Engineering Experiment Station in La Jolla, California. This project’s originators aim to show how a ring-shaped, rotating human habitat could feasibly be built in space — and how that structure could grow, to accommodate more and more visitors (or inhabitants).

"Phase 2 decisions are always challenging, but we were especially challenged this year with so many successful Phase 1 studies applying to move forward with their cutting-edge technologies," Jason Derleth, the NIAC program executive at NASA Headquarters in Washington, D.C., said in the same statement.

"Whether its tensegrity habitats in space, new ways to get humans to Mars, delicate photonic propulsion, or any one of the other amazing Phase 2 studies NIAC is funding, I'm thrilled to welcome these innovations and their innovators back to the program," Derleth added. "Hopefully, they will all go on to do what NIAC does best — change the possible."

New Evidence that Life Is Currently Incoming to Earth from Space

Milton Wainwright and Tareq Omairi - EDGESCIENCE #25 • MARCH 2016 / 7

Panspermia, the theory that life on Earth originated from space, has a very long history going back as far as the Greeks. The modern version was developed by the cosmologist mathematicians Sir Fred Hoyle and Chandra Wickramasinghe. In cosmological terms, nothing fundamentally different has happened to the Earth since life first began here so it is reasonable to assume that if life arrived here from space then it is continuing to do so at this very moment, a viewpoint referred to as "neopanspermia." If life is indeed coming to Earth then it should be possible to prove the theory of neopanspermia by intercepting it at some point on its journey. In order to avoid the "biological noise" produced by the Earth's biota, it is obviously desirable to search for incoming biology by sampling as high as possible above the Earth. Earlier studies showed that bacteria exist at heights at just above 60 km. However, in order to avoid the problem of biological contamination from Earth, it would be desirable to sample far above the stratosphere, for example using the International Space Station. Such sampling presents various technical problems and is yet to be attempted. For the moment then, we are restricted to sampling for incoming life in the stratosphere using sounding rockets and helium filled high-altitude balloons. A number of studies have shown that known terrestrial bacteria and fungi can be isolated from the stratosphere. Modeling studies have shown that particles like bacteria that are less than 5 microns can be carried from the Earth to the stratosphere, so it is reasonable to assume that bacteria and fungi in the stratosphere originate from Earth, having been elevated to this region by, for example, violent volcanic eruptions (of course, it could be argued that all terrestrial organisms originate from space so that those that are elevated from Earth to the stratosphere also have a cosmic origin). However bacterial masses of size around 10 microns have also been isolated from the stratosphere, and since these exceed the theoretical limit for the elevation of

particles to this region it has been suggested that these clumps are incoming to Earth from space, with the result that the stratosphere contains a mixed population of bacteria, one group exiting the Earth and the other incoming from space. This suggestion remains tentative however, because the clump size of such bacterial masses is relatively close to the theoretical particle-elevation limit.

Unusual biological entities in the stratosphere

Recently we have isolated very unusual organisms—which we refer to as Biological Entities or BEs—from the stratosphere using a balloon-lofted sampler. The launches began in 2013from various locations in the United Kingdom; single launches were also made from Iceland and Death Valley in the U.S. and are ongoing. These organisms are not bacteria and, as far as we can tell, are not like any known Earth organisms. They range in size from 10 to 40 plus microns and, since they clearly exceed the theoretical particle-elevation limit, are highly unlikely to have been elevated from Earth to the stratosphere. We are confident that the BEs are not contaminants from Earth's surface, but have been isolated in the stratosphere at heights approaching 30 km. With the exception of a diatom frustule-fragment found in the first sampling trip, none of the BEs we have isolated are obviously representatives of known terrestrial biota (see discussion of this paradox below). Published computer simulations predict that particles of size 5 and 10 microns remain below 20km, 2 micron-sized particles can reach 30 km, while 1 micron particles (i.e. the size of most bacteria) can reach 45 or possibly65 km. Again, this work suggests that it is extremely unlikely that the particles which we claim to be biological, and which range in size from 5-to-50 microns, have been uplifted from Earth to heights above 20 km, i.e. into the stratosphere. It is, however, possible that larger particles could be elevated into the lower stratosphere by a very large volcanic eruption, which can remain in the stratosphere for around two years; no such major volcanic eruptions preceded the sampling launches. We are confident that none of these biological entities are being elevated from Earth to the stratosphere but instead are incoming to Earth from space. One of the principal findings that support this view is the absence of pollen or grass debris on our sampling stubs. In fact the BEs, which are found at very low frequency, occur as individual, pristine BEs and do not occur with any common Earth organisms. Pollen and grass debris cover the entirety of the outside of the sampling box, but, as yet, none has been found inside the intact box after its

parachute has returned to Earth. Critics who are convinced that these stratosphere-isolated BEs must according to the application of Occam's Razor) originate from Earth are asked to describe a mechanism by which such particles are elevated to the stratosphere without any contaminating pollen grains, grass seeds, or marine and fresh

Water algae or protozoa. What is the nature of the "sieve" that allows such BEs to pass through, while holding back known, obvious terrestrial organisms? We realize that here we are risking becoming "hostages to fortune" since if any stratospheric pollen grains are isolated, either by us or other workers, then this would be taken as evidence that all of our sampled BEs must originate from Earth. However, according to our current understanding, particles greater than 5 microns in size cannot cross through the tropopause into the stratosphere. If a pollen grain or other Earth-derived particle smaller than this value reached the stratosphere, then this would not contradict our suggestion that the BEs originate from space. If, however, a pollen grain larger than 5 microns were to be found in the stratosphere, then this would demonstrate that an as-yet unknown mechanism exists that can elevate particles bigger than 5 microns across the tropopause. Such a finding would at first sight destroy our claim that the BEs we find in the stratosphere originate from space. In this case we would initially fall back on claims of organism-novelty, i.e. that since our BEs (with the exception of the diatom fragment) are morphologically similar to no known biology found on Earth, they must originate from elsewhere, an obviously tenuous position since such stratosphere-derived biological entities may exist undiscovered on Earth. (One would still ask: why it is that common, known organisms, are not over represented on our sampling stubs?) The claim that we have discovered biota originating from space would, however, continue to be supported by the fact that, in some cases, our stratosphere-isolated biological entities cause impact events on the sampling stubs. Of particular interest is a sphere that caused a major impact event on the sampling surface. Analysis by EDX (Energy Dispersive X-ray) spectroscopy shows that the surface of the sphere is rich in titanium. In addition, SEM (Scanning Electron Microscope) imaging shows the presence of biological filaments on the surface. Biological material was also seen to ooze from the sphere when it was moved using a nano-manipulator and monitored in real time. We assume that such impact craters are caused when the BEs reach the surface of the sampling stubs from space inside minute ice grains. It is these, we theorise, that cause the impact events, only to disappear and leave the pristine BE resting on the impacted carbon surface of the stub. They might, however, be explained on the basis that an

unknown elevation mechanism can carry 5 micronplus BEs and particle masses, such as the ones we have sampled, from Earth to extreme heights in space. On falling back to Earth, these could then cause the observed impact events on our sampling stubs. But we consider this explanation to be highly unlikely.

How critics have responded to our findings

The following noteworthy paradox emerges from our findings on our first sampling launch we isolated an unmistakable fragment of a diatom frustule, an ornate silicon structure that contains the algal protoplast of the diatom. The frustule fragment was empty and obviously damaged. Diatoms occur in vast numbers in the Earth's freshwaters and seas and therefore, not surprisingly, our critics suggested, usually by invoking Occam's razor, that the diatom frustule we isolated originated from Earth. Here in lies the paradox. According to modelling studies, the diatom fragment was too large to have been transported to the stratosphere by any known mechanism and, as a result, we maintain it arrived to the stratosphere from space. Critics then respond by saying that there must then be an unknown mechanism by which the frustule-fragment was elevated to a height approaching30 km. If this is the case, then we would expect to find numerous other, similar-sized, Earth-derived biological particles on our samplers, including grass particles, algae, fungal spores, and pollen. Like diatoms, vast numbers of these occur in the Earth's atmosphere, so why is it that we have only isolated a single (and relatively heavy) diatom fragment? In order to solve the paradox, we invoke Occam's razor to make the counter-claim that space is the most obvious source of the diatom frustule. We admit that it is not easy to accept the proposition that complex eukaryotes occur elsewhere in space, but we maintain that this is the only way this paradox can be solved. Critics have also suggested that the particles we claim are biological must have originated from terrestrial volcanoes, satellites (including the International Space Station), space junk, or stratosphere-crossing aircraft. In response we point out that(a) no volcanic dust (which is easily recognizable) has been found on our samplers, (b) by international conventions, all material sent into space must be sterilized, so it is unlikely that man-made materials present in space could act as source of the organisms, and (c) stratosphere crossing aircraft are flying at high speeds sufficient to remove surface-borne stratospheric particles, or else these are likely to burn off as the airplane surfaces heat up due to friction. However, the ultimate argument against

all of these criticisms is that if our claimed biological particles did in fact originate from these sources, then pollen, fungal spores, and a vast array of both common microbes and biological material from the Earth would also be seen on our samplers—and this is not the case. As mentioned previously, the same argument applies to criticisms regarding contamination during both sampling and sample processing. We remain confident that the evidence continues to show that the increasing number of biological entities, which we have isolated from the stratosphere, some of which are described here, originate from space, most likely from comets. Our claim suggesting a space origin for these organic particles is based on the following findings:

1) The BEs occur in very low numbers as isolated particles on the carbon sampling stubs that were exposed to the stratosphere. With the exception of a single diatom frustule fragment, known terrestrial organisms commonly found on Earth (e.g. grass seeds and pollen) are not sampled from this source. In addition, material having the typical orphology EDX signature of volcanic dust has never been seen on the sampling stubs.

2) The observed stratosphere–derived BEs are unusual and (with the exception of the diatom fragment) cannot be identified by us as terrestrial organisms (e.g. marine or terrestrial alga or protozoa).

3) The biomorphs are often associated with impact craters caused by inorganic, space-derived cosmic dust.

4) Some of the BEs themselves also produced impact craters on the carbon sampling stubs, again suggesting that they are incoming from Earth from Space.

5) The BEs, and/or the inorganic masses on which they are found, exceed 5 microns, the size limit above which it is generally assumed that particles cannot be transported from the troposphere to the stratosphere. It is also worth noting that the stratospheric dust we isolate is mostly of extraterrestrial origin making it improbable that the BEs we find (which are not associated with terrestrial biology) originate from Earth. Our most recent launches into the aurora borealis above Iceland and above Death Valley (publication pending) in the USA have confirmed the presence of biological entities in the stratosphere, as well as a variety of inorganic particles containing rare earth minerals such as holmium, praseodymium, and tantalum.

Speculations

Most biologists respond to our findings by suggesting that they result from contamination and/or that the organisms we have isolated have obviously been carried up to the stratosphere by some unknown mechanism(s). Such a mechanism obviously fails to elevate similar sized pollen and grass particles and can apparently cause impact events on the stubs of our samplers. Biologists react negatively to our work, presumably because of its apparent negative impact on the theory of evolution, since it suggests that genetic information from space is continually arriving from a source external to Earth. This fact would obviously play havoc with the universally accepted view that the evolution of life on Earth, although branched (or bushed), is essentially forward moving and operates within a genetically closed system. Our work instead suggests that Earth's evolution has been periodically "topped up" with genetic information from space, an idea first suggested by Hoyle and ickramasinghe. One could speculate, for example, that the Cambrian explosion may have been caused by the arrival of such exogenous genetic information; yet another possibility is that novel diseases arrive to Earth from space. Even more speculatively, Francis Crick suggested without any sense of irony that life might have originally been sent (and therefore could be continually delivered)to Earth by some alien civilization by the process known as "Directed Panspermia"; this speculation is particularly relevant to the titanium-rich sphere described previously. The negative reaction expressed by many biologists to our findings might be reduced by pointing out that probably a large proportion of the biological entities which we believe are arriving from space to Earth will be dead at the point of their arrival. This would not, of course, prevent their DNA being transferred to Earth-based organisms. It may well be that some of the so-called "junk DNA" has a space origin, or that the large amount of DNA in the Earth's environment, from which no microbes have yet been isolated, has a similar origin. An important aspect of our work, which we have not previously emphasized, is that some of the BEs that we have isolated, although microscopic, are not bacteria but appear Tobe complex organisms that possess bilateral symmetry. This suggests that eukaryotes as well as prokaryotes are arriving to Earth from space.

Replication requested

It would be a relatively simple and inexpensive task to repeat out work, and we hope that the world's space agencies and other researchers will do so in the near

future. If we are correct, then our findings will have a major impact on our view of life on Earth and in the cosmos. Life on Earth, we suggest, originated from space (although this does not exclude a parallel process of chemical evolution) and continues to arrive to, and possibly exits from, the planet at this very moment. If we are correct, then biologists will have to accept that the cosmos contains microbial life and that the Earth and other celestial bodies are wide open to the transfer of cosmic life.

REFERENCES

Dehl, T., Lorge, F., and Dickinson, M. (2008). "Uplift of microorganisms by electrostatic fields above thunderstorms." Journal of Electrostatics 66,463–466.

Harris, M. J., Wickramasinghe, N. C., Lloyd, D., et al., (2002). "Detect ion of living cells in stratospheric samples." Proceedings of SPIE Conference, 4495, 192–198.

Hoyle, F. and Wickramasinghe, C. (1981). Evolution from Space, London, Dent.

Wainwright, M., Wickramasinghe, N.C., Narlikar, J.V. and Rajaratnam, P. (2003). "Microorganisms cultured from stratospheric air samples obtained at 41 km." FEMS Microbiology Letters, 218, 161–165.

Wainwright, M. (2008). "The high cold biosphere." In Focus-Proceedings of the Royal Microscopical Society 12, 33–41.

Yang, Y., Itahashi, S., Yokobori, S. and Yamagishi, A. (2008). "UV-resistant bacteria isolated from upper troposphere and lower stratosphere." Biological Science in Space. 22, 18–25.

Yang, Y., Yokobori, S. and Yamagishi, A. (2009). “Assessing panspermia hypothesis by microorganisms collected from the high altitude atmosphere.” Biol. Sci. in Space, 23, 151–163.

MILTON WAINWRIGHT (right) is a researcher and lecturer in the Department of Molecular Biology and Biotechnology, University of Sheffield, Sheffield, England. He is a Fellow of the Royal Astronomical Society and has been researching the possibility that life is currently incoming from space to Earth since the turn of the century. TAREQ OMAIRi is a research student working for a PhD in astrobiology in Professor Wainwright’s laboratory.

PLANET NINE SHOULD NOT EXIST, ACCORDING TO SCIENTISTS - WHERE DID IT COME FROM?

Sandra Hajda – May 11, 2016

Earlier this year, scientists made a stunning claim: a ninth planet may be orbiting in an elliptical path around the sun.

> "There's good news for those who were annoyed when Pluto was knocked off the list of planets. According to a pair of scientists at Caltech, there may actually be nine planets in the Solar System after all."

Caltech researchers point out that Planet Nine has yet to be observed. Its existence has been theorized after mathematical modeling pointed strongly to the existence of a planet in that position. Computer simulations derived from the orbits of six Kuiper Belt objects (objects with unusual orbits) were used to develop the Planet Nine hypothesis.

Planet Nine is 10 times farther from our Sun than Pluto, according to Science Daily. Researchers Konstantin Batygin and Mike Brown say that it is 10 times the mass of Earth and circling the Sun in a highly elliptical orbit. Planet Nine is 20 times the distance of Neptune from earth, which means it is about 36 billion mi (60 billion km) away.

A year on Planet Nine is the equivalent of roughly 10,000 to 20,000 Earth years.

“The evidence points to Planet Nine existing, but we can’t explain for certain how it was produced.”

Planet Nine: A world that shouldn’t exist

Scientists are still unsure how the planet was produced. Many are wondering: How did it end up orbiting earth at such a great distance?

“If Planet Nine exists, it’s been through one hell of an ordeal… [how could a planet] have gotten itself into such a whacked-out orbit?”

Gizmodo reported this month that Planet Nine may have gotten “punted out” of our solar system when it got to close to Jupiter. Astronomer Scott Kenyon told Gizmodo that the few first million years of the Sun’s life was a chaotic time, with young gas giants crashing into each other and sucking up matter.

Kenyon and fellow astronomer Benjamin Bromley used computer simulations to construct plausible scenarios for the formation of Planet Nine and its current positioning in such a wide orbit.

Bromley and Kenyon propose that Planet Nine formed much closer to the Sun and then interacted with Jupiter, Saturn, and other gas giants. A series of “gravitational kicks” may have deposited Planet Nine into its present orbit, and also made its orbit more elliptical.

As for what caused Planet Nine to slow down enough to remain in our solar system, Kenyon explained that the gaseous disk that surrounded the early Sun could have produced enough friction to slow Planet Nine down.

> “If you have the right mass of planet and the right mass of gas, you can damp the orbit and circularize it.”

Another plausible scenario is that a passing star affected Planet Nine’s orbit, pulling it away from the sun and making its orbit more elliptical.

CNet reports that if the “passing star” scenario is true, it is quite surprising that the star did not pull Planet Nine out of our solar system completely.

> “A passing star is far more likely to pull the planet out of its orbit completely and chuck it into space.”

A final, third theory, also by Kenyon and Bromley, proposes that Planet Nine formed all the way out there in its current orbit.

The scientists admit that this scenario is unlikely but plausible if the protoplanetary disk lived long enough, and had enough mass.

> "Our idea is that as the gaseous disk is going away, it develops a hole, which gets bigger and bigger until the disk is gone. "As this hole is getting bigger, material outside the hole sweeps up solid particles like a snowplow, and deposits them at a large distance." Over the course of hundreds of millions of years, all of those plowed up ice shavings snowballed into one another, resulting in a jawbreaker about twice the size of the Earth."

Strange orb splits into three before disappearing in the night sky

May 16, 2016 3:56PM

These three orbs came from one light source before disappearing all together.

SPACE enthusiasts are claiming to have unequivocal proof of alien life following new footage of a strange glowing orb hovering in the sky before bursting into three.

YouTube user Jared A was driving the streets of Alaska at 3am when a burning bright light in the night sky caught his attention.

The awe-struck driver filmed as the object split into two, before one half vanished.

The remaining orb then erupted into three separate lights, which made a triangle formation in the sky before disappearing.

After uploading the footage to YouTube, Jared shared it on Reddit with a more detailed explanation.

“I was coming around Morris Thompson Visitor Centre I looked up again and saw a bright like shoot straight down and disappeared,” he wrote.

“The one in the video just kept on flashing and at that point I whipped out my phone and began to record. I was kinda scared but excited to witness this anomaly.

“As you can tell in the video I was pretty in awe. The phone does not do it justice, but it was brighter and just simply amazing to see.”

In the days following the event, the video has attracted a number of UFO enthusiasts supporting the claim the object is from out of this world.

“I think this is genuinely unearthly. Unless there’s sound proof otherwise, this one might make the history books,” wrote one Reddit user.

“Damn. Very intriguing, fascinating actually. This is really good. If it were ‘just’ a light that’s one thing, but for it to split into two, and then three distinct objects, separately, is what I’ve heard some UFOs are seen to do,” wrote another.

Of course, not everyone was willing to accept the UFO explanation.

“Looks more like the strobes on a helicopter to me,” one YouTuber wrote.

“Just a weather balloon,” wrote another.

Triangle UFO moves low over Illinois

Posted by: Roger Marsh May 25, 2016

An Illinois witness at Spring Grove reported watching a “large, illuminated” triangle UFO at close proximity about 9:30 p.m. on May 22, 2016, according to testimony in Case 76537 from the Mutual UFO Network (MUFON) witness reporting database.

Cropped and enlarged portion of witness illustration #1. (Credit: MUFON)

The witness first noticed the hovering object while driving southbound along Wilmot Road.

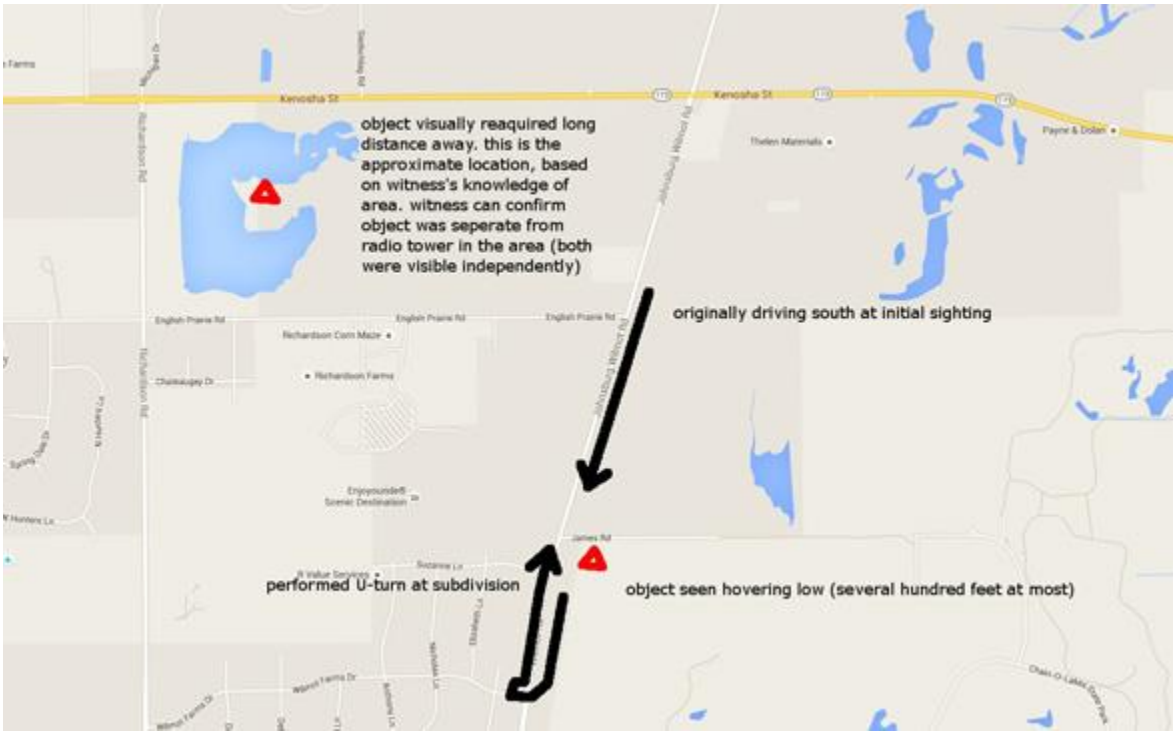
“Object was at an estimated height of 200 feet above ground,” the witness stated. “As I drove closer, I was able to get almost underneath it (~75-80 degrees from horizon).”

Cropped and enlarged portion of witness illustration #2. (Credit: MUFON)

The witness continued driving in order to find a location to turn around, losing visual observation behind trees.

Cropped and enlarged portion of witness illustration #3. (Credit: MUFON)

“Turning around at the nearest road and driving back to location took less than one minute. In that time, the object traveled northwest a good distance, and was seen moving slowly and slightly angled (banking?). Object became obscured behind trees on the side of the road and visual was lost. Entire encounter took less than two minutes.”

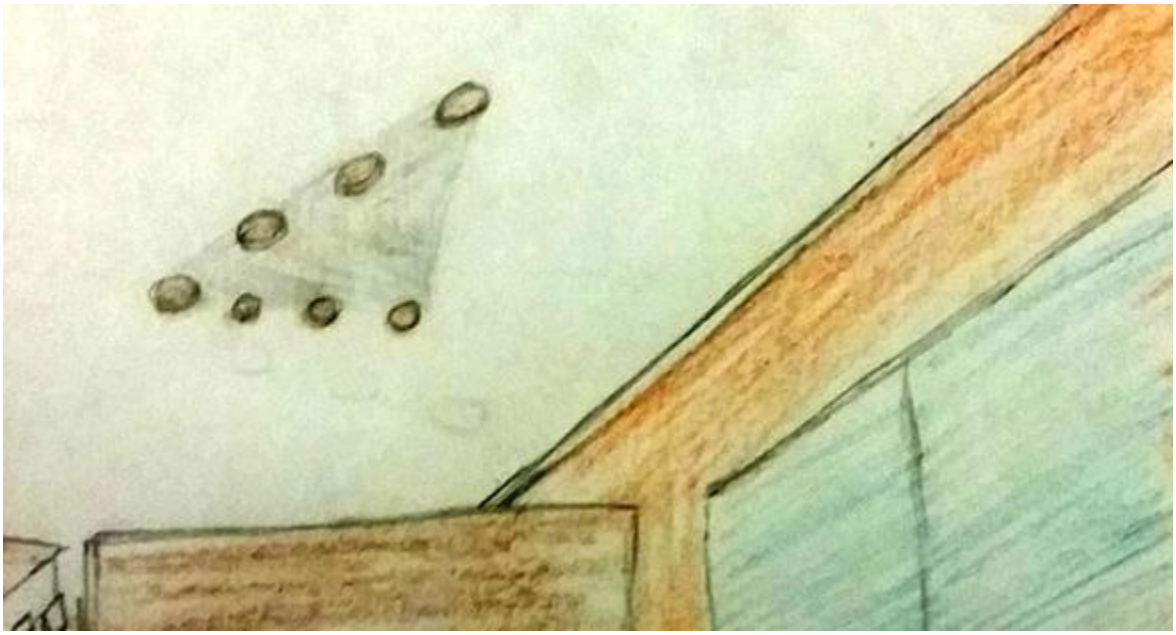


Witness map of the observation area. (Credit: MUFON)

The witness provided three illustrations of how the object looked – and a map showing the object's movement.

The witness was southbound along Wilmot Road in Spring Grove, IL, when the low flying triangle UFO was seen. Pictured: A portion of Wilmot Road in Spring Grove, IL. (Credit: MUFON)

Illinois MUFON State Section Director Gregory Cisko is investigating. Spring Grove is a village in McHenry County, Illinois, population 5,778. Please remember that most UFO sightings can be explained as something natural or man-made. The above quotes were edited for clarity. Please report UFO activity to MUFON.com.

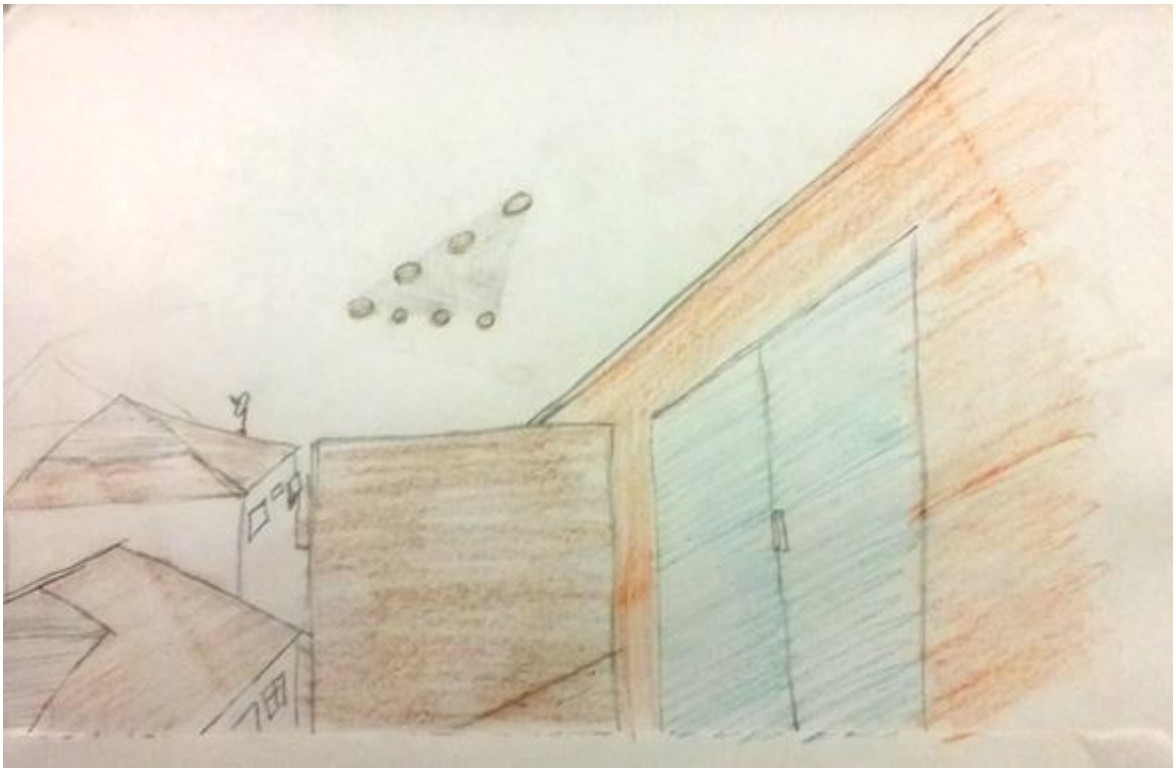


Triangle UFO spotted over Los Angeles County

Posted by: Roger Marsh May 6, 2016

A California witness at Inglewood reported watching a triangle UFO that made no sound, according to testimony in Case 76010 from the Mutual UFO Network (MUFON) witness reporting database.

The witness and his wife and two kids were outside talking at 8:30 p.m. on April 23, 2016, when the incident occurred.



Witness illustration. (Credit: MUFON)

“Suddenly saw a triangular-shaped object with lights almost a yellowish tone,” the witness stated, “The object was gliding on a straight line going west.”

The object was immediately unusual.

“The object was apparently close or too big and there was no kind of noise produced by the flying object that was flying at approximately at 50 mph.”

The triangle-shaped object made no noise. Pictured: Inglewood, California. (Credit: Google)

The witness believes the object was not man-made.

“To my wife and I there was no doubt what we were witnessing was a non-man-made airplane or drone. The object we were looking at was way too fast and big. The object looked nothing like a drone, airplane or helicopter. This object was flat and produced no noise, almost like the object was trying to sneak through the sky.”

The object startled the witness and his wife.

“I was in shock and couldn’t react fast enough to capture the object on video and my wife was so excited as well. She did try to take a picture, but the picture was unsuccessful. All the lights from the neighborhood were too bright and the cellphone camera didn’t capture the object, or at least we can’t tell if it is there or not. The flying source simply disappeared before our eyes continuing its way to the west exactly in direction to the LAX leaving us speechless and with the certainty that what we both witnessed was a once in a life time experience.”

The object did not look like anything the witness was familiar with. Pictured: Inglewood, California. (Credit: Google)

Inglewood is city in southwester Los Angeles County, population 109,673.

California MUFON Field Investigator Earl Anderson is investigating. The witness included one illustration with the report, which was filed on April 24, 2016. Please remember that most UFO sightings can be explained as something natural or man-made. The above quotes were edited for clarity. Please report UFO activity to MUFON.com.

UFO Hunter Claims He Discovered Artificial Structures in Huge Cities On Venus

Posted on May 7, 2016 by LUFOS

At least in the eyes of some UFO hunters, aliens aren’t just building structures on Mars. Recently published images of Venus seem to show artificial structures in large cities, as well as other elements.

According to one researcher, some kind of alien race created the buildings.

YouTube user and alien hunter mundodesconocido posted a video discussing the large cities he discovered while examining the collection of photos.

He also made 3D models of the visible structures.

He speculated in the video that the bizarre shapes are artificial, and they appear to be cities with elements that emit light.

Mundodesconocido tours viewers to the so-called great city on Venus, showing somewhat raised structures across the planet that he believes to be alien apartment complexes. However, skeptics would say that they are just craters on the surface.

These images in the video came from the Magellan probe that was launched to Venus in 1989 and arrived a little over a year later. Its missions were to study chemical processes, planet's interior, land forms and tectonics, deposition, erosion, and impact processes.

Doubters argue that those protruding structures, which were referred to as huge cities, are just the result of the volcanic flows on 85 percent of the Venus' surface.

UFO with green lights passed over our plane, say Turkish Pilots

ISTANBUL – Doğan News Agency

Turkish Airlines pilots have said an unidentified object with green lights passed over their plane late on May 19, stirring speculation about a possible “UFO sighting.”

“An unidentified object with green lights passed 2 to 3,000 feet above us. Then it disappeared all of a sudden. We are guessing that it was a UFO,” the two pilots told the Air Traffic Control Center at Istanbul’s Atatürk Airport.

The “UFO” was seen around Istanbul’s Silivri district, during a flight from the western Turkish resort town of Bodrum to Istanbul.

The unidentified object was spotted when the plane was flying at around 17,000 feet at around 11:30 p.m. on May 19, according to the pilots.

The plane landed at Atatürk Airport around 30 minutes later.

The General Directorate of State Airports Authority said it did not spot any image in its radars similar to what the pilots had described.

Were neon green orbs hovering above Santa Fe a UFO?

Posted: Thursday, May 5, 2016 7:00 pm | Updated: 8:12 am, Sun May 8, 2016.

By Staci Matlock - The New Mexican

Justin Duran is a skeptic. He says so.

He doesn't believe in ghosts or aliens or extraterresterials. "But after last night …," he said, his voice trailing off on the phone.

His skepticism began to waiver, he said, at about 12:40 a.m. Wednesday when the 26-year-old Santa Fean stepped out of his car near the Super 8 motel on Cerrillos Road and looked up into the night sky. He saw three transparent, neon green orbs moving in concert and hovering in the distance toward the Santa Fe Place mall. "They looked like balls of energy. It was spectacular," Duran said. "At first I thought it was a plane."

But the spheres had no blinking lights and no skeletal structure, Duran said. "I got a sense, though, that it was one structure because of the way they moved together," he said.

The orbs moved toward him and stopped for a second. "All of a sudden, it did the most ridiculous acrobats I've ever seen, as if it was dancing in the sky," Duran said.

The triangle of orbs stood on an axis, then flipped and came down a few thousand feet before shooting 10,000 feet or more up in the air, Duran guessed. "It was just bizarre."

Then the orbs shot off to the eastern horizon, came halfway back and finally shot off, out of sight. "I'm talking milliseconds, nothing man-made could be that fast," he said. "I doubt anything could withstand those g-forces. I was in disbelief."

The whole event took about half a minute, Duran estimated.

Still not willing to call it a UFO, Duran sought answers. He called the North American Aerospace Defense Command and woke up the on-duty officer at 1:30 a.m.

The sleepy officer, whose name he couldn't recall, checked satellite data and told him she saw nothing that had entered the atmosphere over Santa Fe matching the description he gave.

NORAD spokesman Lt. Marco Chouinard confirmed Duran had called the office and that data showed no satellite debris, rockets or other known object entering the atmosphere above Santa Fe. He said the facility receives calls "from time to time" about unidentified objects people have seen whizzing through space.

Duran certainly would not be the first person in Santa Fe to see an odd, unidentified shape frolicking in the night sky. New Mexicans have reported hundreds of sightings over the past 30 years — triangles of lights like Duran saw, blue light formations, pulsating spheres, fireballs and orbs of different colors, according to the National UFO Reporting Center.

The most recent reported sighting in Santa Fe was March 16, when someone reported a triangle of three glowing red lights flying low over N.M. 599 near the junction with U.S. 285. In late April, a woman in Alto, N.M., reported "a large triangle in the western sky, which exhibited three white lights in each of the corners of the triangle, and a blinking red light in the center of the ventral surface. The object appeared to be trailed by a cluster of blinking white lights, and military aircraft appeared to the witness to be in proximity to the objects," according to the National UFO Reporting Center.

The center collects reports of UFO sightings from around the world. New Mexico has had more than 1,000 sightings dating back to 1944.

The center includes explanations of what people have seen when those details are available. Sometimes the light turns out to be from a planet. Sometimes spheres

are weather balloons or high-altitude research balloons launched by NASA scientists. Some could be the many types of drones now taking to the sky, guided by private citizens, businesses and the military. Sometimes there is no ready answer, but a lot of guesses.

Chouinard said what Duran saw Wednesday could have been night flights by the military to test some new aircraft.

Eldorado astronomer Thomas Ashcraft, who tracks fireballs and other meteoric events for Sandia National Laboratories' Sky Sentinel program, said the timing of Duran's sighting was too early for a meteor shower. He would have suggested Duran saw a trio of spy satellites, but the movement of the objects probably ruled that out.

He said around the world, people send up candle-lit Chinese lanterns around this time of year.

"A lot of hoaxers send those up all the time," Ashcraft said.

Duran called the local newspaper, curious if anyone else had seen the green orbs. He sounded hopeful. He doesn't want to be the only witness to an event sure to raise eyebrows and prompt skeptics. He was quick to assure a listener that he's never had visions or heard talking voices, and he doesn't have mental health issues.

Duran can't stop wondering what he saw.

"It was pretty amazing but also frightening," he said. "Man, I really did see something strange."

Witness reports helicopter ‘escorting’ cigar UFO

Posted by: Roger Marsh May 19, 2016

A Washington witness at Battle Ground reported watching what appeared to be a military helicopter escorting a cigar-shaped UFO very close to ground level, according to testimony in Case 75344 from the Mutual UFO Network (MUFON) witness reporting database.

The incident occurred beginning at 11:20 p.m. on March 21, 2016, and was reported to MUFON the following day.

The witness believes that the helicopter was a Chinook. Pictured: A U.S. Army CH-47D. (Credit: Wikimedia Commons)

“I was in the backyard and heard this incoming Chinook helicopter flying near, close to the ground, very loud, and as it passed into view, just ahead of it was this dark moving craft,” the witness stated, “Observing both was very short, but I could make out a cigar shape as best as I can describe. It could have been diamond shaped, or could be a disc on edge, but it was very much something that was making no sound at all. Seeing the helicopter so close to it, could see it was being escorted.”

The witness believes there has been UFO activity in the area over a long period of time.

“I have prior reports from the area, and also have not mentioned other strange sightings here. They are very frequent and Battle Ground, Washington, is an area UFO watchers should be looking more into these days.”

The case was investigated by Washington Assistant State Director Aleta DeBee and closed as an Unknown.

“The two craft were about the same size, traveling at the same speed and same height, just 2 to 300 feet off the ground,” DeBee wrote in her report. “It seemed to him that they might have been traveling close to the ground to stay beneath the radar. They were traveling to the northwest. The dark, oblong object was unlighted. The crafts were close to his location, probably no more than 300 feet away. It moved so fast that it seemed like less than a second that he was able to see it before it had flown beyond the clearing.”

The helicopter appeared to be escorting the UFO. Pictured: Soldiers prepare to board a CH-47F at the National Training Center, Fort Irwin, California. (Credit: Wikimedia Commons)

DeBee reviewed the case details.

“The helicopter was manmade, without visible insignia, possibly a dark blue/green color. Looked to be a Chinook, as it had two props. Very large, very loud. Object was flying in front of the helicopter, and appeared totally black, oblong, like a cigar or elongated diamond shape. Weather was clear, 46-degrees F., with a visibility of 10 miles. Wind about 5 mph. Battleground is a thriving populous community, a suburb of Vancouver. It is located about 30 miles north of Portland International Airport, and about 20 miles north of Vancouver and about 30 miles southwest of Mount St. Helens.”

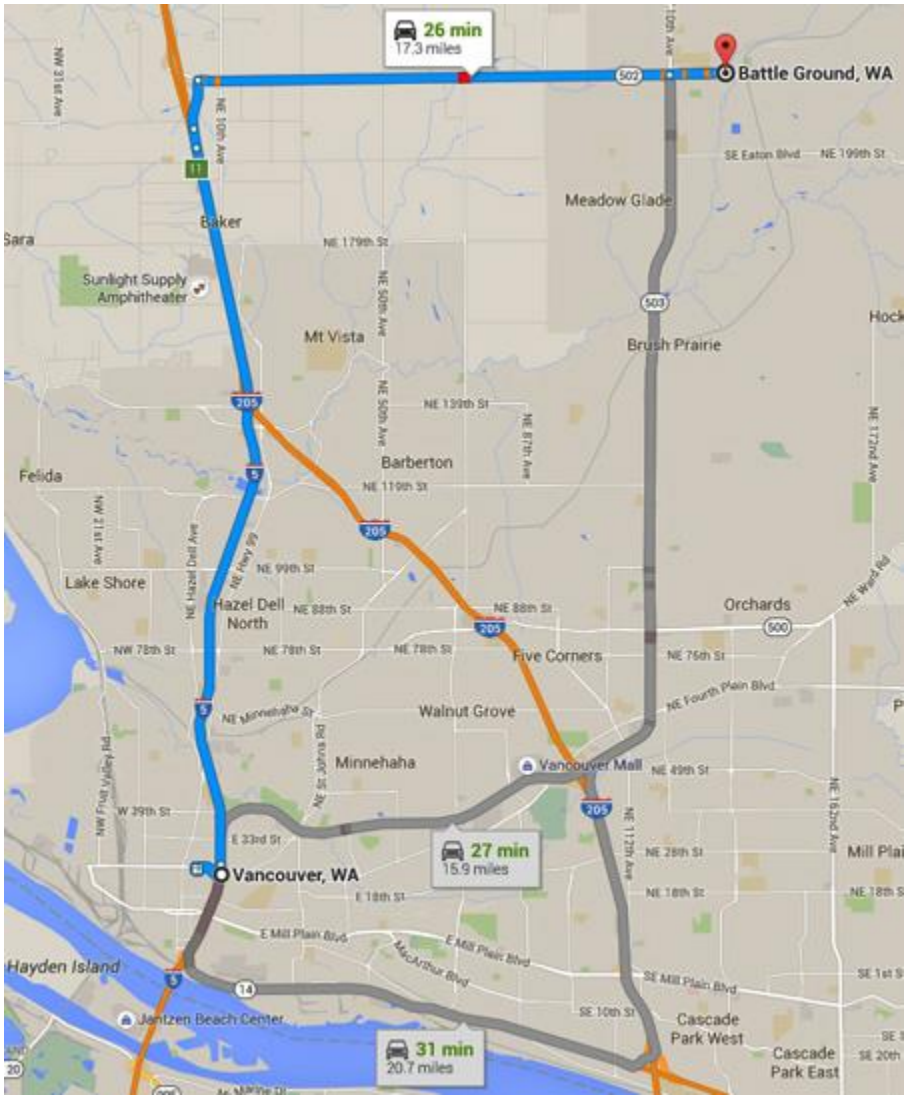
Other databases and resources were reviewed.

“Checked NUFORC immediately and two weeks afterwards to see if there were other sightings. Checked weather. Called Joint Base Lewis-McChord to find out what explanations there might be for this event. Was told by the public information officer on duty that at any one time they might have 150 helicopters in the air, and it’s hard to say what they are doing. Called the Control Tower at

Portland International Airport, about 20-25 miles south and southwest of the sighting locations to see if they had any idea what it was, and whether there was any radar information. They said that it may be that there were maybe exercises that the military was conducting that included one helicopter flying with another, one with night vision equipment and without lights, while the other would have lights.

"I called the tower another day, and received the phone number for the FAA Standards unit in Oregon. The person there at the FAA said that this did not sound like anything he'd ever heard of before, but offered some good information. He said that if aircraft fly along the river often. If they are flying low in Washington, they probably won't show up on radar, and these sounded like they were running within 500 feet of the ground. He said that aircraft that are running below 1000 feet don't need to talk to the tower. Also, that military aircraft don't always follow the rules. He suggested training for putting out fires this coming summer.

"Called Bill Puckett, who gave good advice about aircraft details and radar. He was very helpful, but I decided that there's no doubt that there were helicopters involved. As for the other object, any radar data would be inconsequential, as the helicopter and the object were so close together they would show up as one object, even if radar had a blip. He said that Troutdale has an airport that is set up to accommodate military planes. Troutdale is just south of Washougal."



Battle Ground is about 16 miles northeast of Vancouver, WA. (Credit: Google)

"MUFON Case #75413 was the same night, and almost the same description. The witness in that correlating case was able to see the object for a longer time.

"Considering that this object was in front of the helicopter and not slung underneath it, was not lighted, and made no sound but moved as fast as the helicopter, I conclude that this was an Unknown. It may have been a military vehicle, but not one known to this investigator at this time, so it is still unknown."

Battle Ground is a city in Clark County, Washington, population 17,571. Please remember that most UFO sightings can be explained as something natural or man-

made. The above quotes were edited for clarity. Please report UFO activity to MUFON.com.

'World on brink of being told aliens EXIST' after NASA 'hints at announcement'

THE world's population is being primed for an announcement that aliens have visited Earth after NASA hinted at new developments, conspiracy theorists have shockingly claimed.

By Jon Austin

PUBLISHED: 04:16, Sat, May 7, 2016 | UPDATED: 10:13, Sat, May 7, 2016

Conspiracy theorists believe we're on the verge of being told aliens exist

NASA Chief Scientist Ellen Stofan said "strong indications of life beyond Earth" would likely be obtained within the next decade.

But it has been interpreted as a cryptic code for an imminent disclosure, as soon as this year, by leading ET conspiracists.

Ms. Stofan said: "I think we're going to have strong indications of life beyond Earth within a decade.

"I think we're going to have definitive evidence within 20 to 30 years.

"We're on the verge of things that people have wondered about for millennia. Within all of our lifetimes we're going to understand that there is life on other bodies in the solar system. We're going to understand the implications of that for life here on Earth."

But, whereas the NASA chief was likely referring to signs of the earliest forms of life, such as single-celled organisms in space, the conspiracy community has taken the remarks a giant leap further.

In a posting on Conspiracyclub.com, the website argued: "Most people 'in the know' realise that NASA is just part of the military industrial complex, but a recent open admission on mainstream news that 'there are indications of alien life' is likely the beginning of a bid to get your undivided attention before full-forced disclosure ensues.

"It isn't going to take that long if we open our eyes."

The website report suggested that rather than being on the brink of an historic discovery, the world's leaders have been hiding the existence of aliens from us for years.

The post added: "What we're going to understand is that our 'secret' government has been hiding this fact for ages.

"Our shadow government has been lying about off-planet corporate slavery rings, alien abductions, benevolent beings who can only do so much until our collective consciousness elevates, and much, much more.

"We will learn that aside from extraterrestrial beings visiting our planet and many different ET races tinkering with our DNA over millenia, there are ancient humanoid races that are more than 10million years old."

Conspiracy theorists claim that a global elite comprised of people more senior than the US President have been hiding evidence from the general population for years for fear of their reaction and the potential impact on religion, the rule of law, and civil disorder.

But sceptics claim much of these conspiracies are just myths that begin life as sic-fi novels and explode once someone puts them forward, before they are repeated online over and over.

But the website is convinced something is coming, but that NASA's talk of new announcements were just a "ruse."

It added: "Be sure to remember those who have been executed to try to prove this information to us decades ago, and to use discernment when the truth is finally revealed."